

20020112.qrp v02_n434.qrl.20020112

Date: Sat, 12 Jan 2002 19:03:07 EST
From: qrp-l@Lehigh.EDU
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: QRP-L digest 2434

QRP-L Digest 2434

Topics covered in this issue include:

- 1) [117449] Re: SW+20 question
by kb1dxc <kb1dxc@discovernet.net>
- 2) [117450] New record holder
by "Karl F. Larsen" <k5di@zianet.com>
- 3) [117451] Re: [fpqrp] Truffle Hunt de K8FP
by k8cz@att.net
- 4) [117452] Re: New record holder
by Dave Sjolin <sjolin@swbell.net>
- 5) [117453] FS: MXM Transceiver
by "N3BJ" <alanfryer@email.msn.com>
- 6) [117454] Fwd: Texas Instruments' Op Amps for Everyone Design Reference Now
Available Online (fwd)
by Jeff Furman <jfurman@ocs.net>
- 7) [117455] Conductor size vs calculated length
by "Tracy Markham" <tracy@bytemark.com>
- 8) [117456] Fw: [fpqrp] Parts source needed
by "JOSEPH PIRKLE" <ad4ih@worldnet.att.net>
- 9) [117457] Re: Conjugate Matching (now very long!)
by "George, W5YR" <w5yr@att.net>
- 10) [117458] Just Testing
by "Royce Simmons" <w2rbn@prodigy.net>
- 11) [117459] NorCal 38-Special transceiver manual
by "Craig Johnson" <cbjohns@mn.mediaone.net>
- 12) [117460] Re: ZoneAlarm ?
by tailfeathers@juno.com
- 13) [117461] One More Time with AK1P's correct email
by Jerry Parker <jparker@fix.net>
- 14) [117462] FS: 6ft RG174-BNC cable assembly
by "Rod N0RC" <rod@n0rc.com>
- 15) [117463] Re: New record holder
by "Karl F. Larsen" <k5di@zianet.com>
- 16) [117464] Re: ZoneAlarm ?
by "George, W5YR" <w5yr@att.net>
- 17) [117465] HW 8 & PSK31
by Drbob92031@aol.com
- 18) [117466] Reflector Down?
by "John J. McDonough" <wb8rcr@arrl.net>

- 19) [117467] Re: HW 8 & PSK31
by "John J. McDonough" <wb8rcr@arrl.net>
- 20) [117468] Re: HW 8 & PSK31
by W2AGN <w2agn@pobox.com>
- 21) [117469] Re: Reflector Down?
by W2AGN <w2agn@pobox.com>
- 22) [117470] Re: FS: 6ft RG174-BNC cable assembly
by "Rod N0RC" <rod@n0rc.com>
- 23) [117471] Re: Conductor size vs calculated length
by Bruce Muscolino <w6toy@erols.com>
- 24) [117472] FS Paddlette BP-K1
by "Rod N0RC" <rod@n0rc.com>
- 25) [117473] Power Management Contest
by Larry Cahoon <lejek@erols.com>
- 26) [117474] QST - searching for May 76 issue
by n5ib@juno.com
- 27) [117475] Cub Hunt Final Log
by Fred Lesnick <flesnick@tbaytel.net>
- 28) [117476] Re: [NCARC] FS Paddlette BP-K1
by "Rod N0RC" <rod@n0rc.com>
- 29) [117477] AT in PA on Jan 12
by "Ron Polityka" <wb3aal@fast.net>
- 30) [117478] Re: Conjugate Matching
by "James R. Duffey" <jamesd1@flash.net>
- 31) [117479] crystals
by Dave Pomeroy <dave@dpomeroy.com>
- 32) [117480] Re: ZoneAlarm ?
by Bruce Rattray <rattray@gpfn.sk.ca>
- 33) [117481] Truffle Hunt de K8FP V1.1
by "N8IE" <n8ie@woh.rr.com>
- 34) [117482] Audio Filters and AGC
by "James R. Duffey" <jamesd1@flash.net>
- 35) [117483] WB3AAL on AT now
by Jim Cluett <w1pid@yahoo.com>
- 36) [117484] FS: 20/30m band modul for K1
by John Harper AE5X <ae5x@qsl.net>
- 37) [117485] Trouble Posting?
by "John J. McDonough" <wb8rcr@arrl.net>
- 38) [117486] FS: SWL PSK 20 and 30
by PDouglas12@aol.com
- 39) [117487] Re: Audio Filters and AGC
by "John J. McDonough" <wb8rcr@arrl.net>
- 40) [117488] WB3AAL still on AT
by Jim Cluett <w1pid@yahoo.com>
- 41) [117489] K1 20/30m module has been SOLD.
by John Harper AE5X <ae5x@qsl.net>
- 42) [117490] Re: Audio Filters and AGC
by "Karl F. Larsen" <k5di@zianet.com>

- 43) [117491] Re: Audio Filters and AGC
by "James R. Duffey" <jamesd1@flash.net>
- 44) [117492] Re: FS: 20/30m band modul for K1
by "James R. Duffey" <jamesd1@flash.net>
- 45) [117493] 4.9152 MHz Crystal data
by "Jim Kortge, K8IQY" <jokortge@prodigy.net>
- 46) [117494] BLT front panel dimensions?
by "Dave Benham" <dodgeboy@mindspring.com>
- 47) [117495] Georgia Sierra?
by "Mike Branca" <w3irz@att.net>
- 48) [117496] Re: Trouble Posting?
by Larry Cahoon <lejek@erols.com>
- 49) [117497] Re: ZoneAlarm ?
by tailfeathers@juno.com
- 50) [117498] Harbor Freight
by "Henry Freedenberg" <henryf@quartz.gly.fsu.edu>
- 51) [117499] Re: Trouble Posting?
by "John J. McDonough" <wb8rcr@arrl.net>
- 52) [117500] Re: Trouble Posting?
by Hank Kohl <k8dd@arrl.net>
- 53) [117501] Re: ZoneAlarm ?
by tailfeathers@juno.com
- 54) [117502] QRP in London?
by "Michael C. Boatright" <ko4wx@mindspring.com>
- 55) [117503] For Sale
by Wayne Williams <aa5jj@yahoo.com>
- 56) [117504] Yaesu FT-50 ht: Trade or sell
by Paul Womble <pwomble1@tampabay.rr.com>
- 57) [117505] Re: Conjugate Matching (now very long!)
by Ron KU7Y <mswmod@bigplanet.com>

Date: Fri, 11 Jan 2002 19:01:33 -0500
From: kb1dxc <kb1dxc@discovernet.net>
To: qrp-l@Lehigh.EDU
Cc: tdufres@hotmail.com
Subject: [117449] Re: SW+20 question
Message-ID: <a05100303b8652c9c3c3b@[216.221.130.96]>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii" ; format="flowed"

Tom,

I sent a reply up to the reflector for one of the other guys.
I don't have a real good enclosure for the rig, the variable cap is
just sitting there. If you have a nice enclosure it would be better
to mount it close to that part of the board so you could keep the

wires short. Try it, you will like it.

73,
Mike
KB1DXC

>Mike:
>Fascinating!
>What size was the air variable?
>Do you mount on the panel, or just let it hang in the chassis?
>Thanks
>Tom
>
>
>
>
>

>MSN Photos is the easiest way to share and print your photos:
><http://photos.msn.com/support/worldwide.aspx>

Date: Fri, 11 Jan 2002 17:06:10 -0700 (MST)
From: "Karl F. Larsen" <k5di@zianet.com>
To: <qrp-1@lehigh.edu>
Subject: [117450] New record holder
Message-ID: <Pine.LNX.4.33.0201111700120.3554-1000000@Daisy.dog>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Fred, VE3FAL gave away more pelts than anyone else in the Cub Fox hunt this week. He sent out 58 pelts and his deed can be seen on the web page, along with the leading Hounds. There are no hounds that have worked every Cub Fox, but several have worked most of them. The Christmas season hurt most of the leading Hounds.

There are 9 more hunts to go.

--
Yours Truly,

- Karl F. Larsen, k5di@arrl.net (505) 524-3303 -
<http://www.zianet.com/k5di/>

Date: Sat, 12 Jan 2002 00:28:03 +0000
From: k8cz@att.net
To: "N8IE" <n8ie@woh.rr.com>
Cc: "QRP-1" <qrp-1@lehigh.edu>, "FPQRP-1" <fpqrp-1@mpna.com>
Subject: [117451] Re: [fpqrp] Truffle Hunt de K8FP
Message-ID:
<20020112002804.LYAU15547.mtiwmhc25.worldnet.att.net@webmail.worldnet.att.net>

Outstanding job Daryl.

--

73,72, 00

FP #41 NJQRP #338 Fists #2360

ARCI #9606 SOC #336 Norcal ARRL

Hamilton, Ohio EM79ri

Tom, K8CZ

> Here's the results of the Truffle Hunt for 11/02. Thanks to all who gave it
> a go. My first time as a truffle!! Very interesting !! Working Dan's new 570
> at 5 watts to a G5RV. Thanks to all for bearing with me.

>

> Daryl K8FP

>

>

> 0130 w5yr 559 tx george 5w
> 0132 w8diz 559 oh diz 5w
> 0133 k8cv 559 mi walt 5w
> 0134 k4gt 559 ga jim 5w
> 0135 n9ne 569 wi toby 5w
> 0137 w4bqp 579 nc jim 5w
> 0138 k5jhp 559 tx bill 5w
> 0139 w0ch 579 mo dave 900mw
> 0140 kg4ldy 559 va jim 5w
> 0141 af4ps 559 fl mac 5w
> 0143 we9k 559 wi glenn 5w
> 0144 wv9n 559 oh roby 5w
> 0145 ke6ti 599 in harold 3w
> 0147 wa8vxn 559 oh mike 5w
> 0148 k0evz 559 nd doc 5w
> 0149 k8cz 559 oh tom 5w
> 0150 k8mia 559 wv jim 5w
> 0151 w5usj 559 tx chuck 5w
> 0153 nu8s 559 oh dennis 5w
> 0154 w9hl 559 il randy 5w
> 0155 ac5jh 559 ok tom 5w
> 0156 n8var 559 oh ron 5w
> 0158 wa8wv 559 wv dave 500mw

> 0159 wb6bwz 579 ga matt 5w
> 0159 k9ut 559 in jerry 5w
>
> -To unsubscribe, mail to majordomo@fpqrp.com, msg: unsubscribe fpqrp-l -

Date: Fri, 11 Jan 2002 18:33:45 -0600
From: Dave Sjolín <sjolin@swbell.net>
To: k5di@zianet.com
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [117452] Re: New record holder
Message-ID: <3C3F8469.C443B099@swbell.net>
MIME-version: 1.0
Content-type: text/plain; charset=us-ascii
Content-transfer-encoding: 7BIT

"Karl F. Larsen" wrote:

>
> Fred, VE3FAL gave away more pelts than anyone else in the Cub Fox
> hunt this week. He sent out 58 pelts and his deed can be seen on the web
> page, along with the leading Hounds. There are no hounds that have worked
> every Cub Fox, but several have worked most of them.

Fred's 59 is great, especially given that there are fewer than 90 hounds
with two or more pelts in the Cub Hunts. Way to go, Fred!

73 de Dave, N0IT

Date: Fri, 11 Jan 2002 19:35:10 -0500
From: "N3BJ" <alanfryer@email.msn.com>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [117453] FS: MXM Transceiver
Message-ID: <004601c19b00\$ff6ca4e0\$5243103f@hppav>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

For Sale: MXM xcvr for 40M. Kind of rare, not many produced. Features
unique dual conversion RX, dual IF filtering, passband tuning. About 3W
out, works fine. Complete original documentation.

Alan, N3BJ
Bent Mountain, VA

Date: Fri, 11 Jan 2002 16:29:28 -0800 (PST)
From: Jeff Furman <jfurman@ocs.net>
To: qrp-1@lehigh.edu
Subject: [117454] Fwd: Texas Instruments' Op Amps for Everyone Design Reference
Now
Available Online (fwd)
Message-ID: <Pine.LNX.4.21.0201111626150.26306-100000@ocs.net>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

I received this message from Texas Instruments today:

>Whether you are an expert or novice analog designer, this reference offers
>valuable tutorials, real world design examples, and important tips to
>simplify your analog design process.
>
>With eighteen chapters covering everything from basic op amp design to
>filtering techniques and circuit board layout, you'll find diagrams,
>equations, examples, and reference material to aid the designs you're
>developing now. Chapters like "Review of Circuit Theory" and "The Op Amp's
>Place in the World" provide a quick refresher course if you haven't designed
>with op amps in a while. Other chapters like "Interfacing D/A Converters to
>Loads" and "Instrumentation: Sensors to A/D Converters" cover amplifier to
>data converter and data converter to amplifier design considerations. If
>you're designing for low-power applications, you'll want to check out
>"Designing Low-Voltage Op Amp Circuits". These topics and much more are now
>only a mouse click away.
>
>Download the complete book or just the chapters that interest you. You'll
>also find information about how to purchase a hard copy edition.
>
>For more information, go to:
>[http://focus.ti.com/docs/shared/workspace/campaign.jhtml?](http://focus.ti.com/docs/shared/workspace/campaign.jhtml?stk=4463607&cmp=1069&url=http://amplifier.ti.com/opampsforeveryone)
>[stk=4463607&cmp=1069&url=http://amplifier.ti.com/opampsforeveryone](http://amplifier.ti.com/opampsforeveryone)
>
>

73, Jeff AD6MX

Date: Fri, 11 Jan 2002 17:26:10 -0500

From: "Tracy Markham" <tracy@bytemark.com>
To: "QRP-L" <qrp-l@lehigh.edu>
Subject: [117455] Conductor size vs calculated length
Message-ID: <NFBBKLDHALEHCJMAJPKFME00CIAA.tracy@bytemark.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I found some copper strip with an adhesive backing that would make an excellent 'tape on the wall' apartment antenna material. It's about an inch wide and thicker than say 4 or 5 layers of aluminum foil.

I also found some that is about 6" wide.

What kind of deviation would one expect from the standard $468/f$ formula for cutting a dipole? The one inch wide stuff probably won't be much off but what about the 6"? Is there any advantage to using larger conductors in an antenna? Bandwidth?

My antenna book didn't make it here from fl in the move ... I'm devastated, my entire box of books disappeared in the move. The company is gonna buy me a new handbook tho so at least I'll have my bible back, sans all those notes ...

Thanks in advance :)
Tracy N4LGH

Date: Sat, 12 Jan 2002 02:15:29 -0000
From: "JOSEPH PIRKLE" <ad4ih@worldnet.att.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [117456] Fw: [fpqrp] Parts source needed
Message-ID: <013f01c19b0f\$023ab0a0\$db194e0c@pavilion>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="Windows-1252"
Content-Transfer-Encoding: 7bit

Gang,
I am looking to obtain 1 4-pin and 2 2-pin wire harnesses and matching terminal headers of the type used by Small Wonder Labs Please contact me direct with information.

Joe AD4IH

Date: Fri, 11 Jan 2002 20:44:32 -0600
From: "George, W5YR" <w5yr@att.net>
To: Ron KU7Y <ku7y@qsl.net>
Cc: QRP-L <qrp-l@Lehigh.EDU>
Subject: [117457] Re: Conjugate Matching (now very long!)
Message-ID: <3C3FA310.6BBC3ED9@att.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Ron KU7Y wrote:

>
> Hi All,
>
> OK, here's another question that has been bothering me lately.....
>
> Years ago while working in a 2 way radio shop in Oregon I remember that a
> company called Larson sold good antennas. The owner, Larson, was a ham and
> published a little news letter that he sent to all the shops that bought his
> products and just about anyone else who wanted one. It was there that I saw the
> following idea and have seen it several times since.
>
> But..... is it right? And is that really what is meant by the term Conjugate
> Match?

You haven't told us yet what "that" is that Larson or whomever said was
meant by Conjugate Match.

>
> Remember now folks, I'm trying to paint a little picture of what my mind thinks
> is going on. Please read this with that in mind.
>
> Lets say you have a black box that puts out 100 watts of RF at 7 mHz. You have
> a dipole and are feeding it with 50 ohm coax. You also have a very good antenna
> tuner between the black box RF generator and the feedline. Lets also give the
> antenna a feed point impedance of something like 300 ohms.
>
> One last thing to assume for the time being.... NO LOSS. We'll add that in
> later.

OK, let me hop in here, Ron, because the rest is not in my book, and I
think that you went off in left field a bit.

Given the conditions above, and assuming for further convenience that the 300 ohm antenna load is resistive with no reactance, the SWR in the line is 300/50 or 6:1. If there is antenna feedpoint reactance, then the math gets a little more complicated but doesn't do that much more to teach us what we are interested in right now.

Now, what do we have? A transmitter that is pumping out 100 watts through lossless coax into a lossless tuner into a lossless 50-ohm coax line into a 300 ohm resistive antenna load. If the antenna is also lossless - why not? - then all of that 100 watts coming out of the transmitter is going to be converted into radio waves.

The interesting question is what is happening in the coax between the transmitter and the tuner and between the tuner and the antenna.

The coax between the transmitter and the tuner is operating as a flat line terminated in its characteristic impedance of 50 ohms with no loss, so its forward power is 100 watts and reflected power is zero watts. SWR = 1:1. That is a consequence of the tuner doing its job of making whatever the feedline input impedance happens to be look like a 50-ohm resistor for the transmitter load. That's the easy part . . .

What about the other coax? Well, since it has an SWR of 6:1 on it, because it is not terminated in its Z_0 , there will be some curious things happening in that line.

First thing to note here is that we know that the difference between the forward power in the line and the reflected power must be 100 watts since that is what is coming out of the transmitter and tuner. And since there are no losses, all of that 100 watts is being radiated by the antenna and thus is being delivered to the antenna.

So,

$$P_f - P_r = 100 \text{ watts}$$

where P_f is the power in the forward wave on the line and P_r is the power in the reflected wave.

In order to understand what is happening on this line, we need to find the values of P_f and P_r .

A key parameter that describes a mismatched line is its reflection coefficient, usually designated by the Greek letter rho. One definition is

$$\rho = \text{square root of } (P_r/P_f)$$

Another equation that is useful here is

$$\rho = (SWR-1)/(SWR+1)$$

Now, so far we have two unknowns and two equations involving them:

$$P_f - P_r = 100 \text{ watts}$$

and

$$\rho = (6-1)/(6+1) = 5/7 = 0.714$$

Now we can use the other equation for ρ to get

$$\rho^2 = P_r/P_f$$

or

$$P_r = (\rho^2) * P_f = 0.51 * P_f$$

Putting all this into the first equation gives

$$P_f - 0.51 * P_f = 100 \text{ watts}$$

So,

$$P_f = 100 \text{ watts} / (1-0.51) = 100 / .49 = 204 \text{ watts}$$

That is what your Bird wattmeter would read as forward power when placed in the line to the antenna.

Now, what is the reflected power? Simple - it is $0.51 * P_f$ or $0.51 * 204 = 104$ watts.

To summarize then, the line to the antenna is carrying an indicated forward power of 204 watts, a reflected power of 104 watts and is delivering the difference of 100 watts to the antenna. Notice that the effect of the mismatch is to cause the line to have to carry traveling waves carrying powers larger than what is being fed into the tuner. Hmmm . . .

Now, a line with a 6:1 SWR can cause some unusual things to happen. For one thing, the maximum current or voltage on the line is \sqrt{SWR} times the current or voltage at that point on the line if it were flat, or terminated in its Z_0 . In this case, $\sqrt{6} = 2.45$.

If the line were flat and delivering 100 watts without any losses, then the maximum voltage on the line and at the load would be

$$E_{\text{max}} = \sqrt{P \cdot Z_0 \cdot \text{SWR}}$$

where P is the net power delivered to the load, Z_0 is assumed to be purely resistive as it is almost all the time at HF and $\text{SWR} = 1$. Substituting our known numbers,

$$E_{\text{max}} = \sqrt{100 \cdot 50 \cdot 1} = 70.7 \text{ volts}$$

for the flat line. The maximum or peak voltage is $\sqrt{2}$ times the RMS value or 100 volts in this case. A similar analysis applies to maximum and peak currents.

For the mismatched line, though, the result is

$$E_{\text{max}} = \sqrt{100 \cdot 50 \cdot 6} = 173.2 \text{ volts}$$

As above, the peak voltage would be $\sqrt{2} \cdot 173.2$ volts or 245 volts. Thus, as SWR goes up, the voltage and current stress on the line also increases as the square root of the SWR. Since the current and voltage is increased by the SWR, one would expect that line loss would also go up with SWR, and such is the case, although we have neglected loss here for simplicity.

Another interesting fact about improperly terminated lines is that their input impedance is not Z_0 - 50 ohms in our example - but can take on any of a large range of values depending primarily on the frequency, Z_0 of the line, the length of the line and, of course, the terminating impedance at the antenna.

There are complex formulas for calculating this, or a Smith chart can be used, or in these days, any number of computer programs that will solve all the equations we have been using here. Note, that even if the antenna load is resistive, the input impedance is usually complex with both a resistive component and a reactive component. That is another reason for neglecting any load reactance in our examples here. The line input impedance is already complex due to the mismatch at the load.

This accounts for the difficulty at times of getting a tuner to "work right" on certain bands with certain antennas and certain feedlines. Fortunately, most of the time, simply altering the feedline length a few per cent can correct the problem.

I believe that the analysis above has pretty well outlined what is happening in the system described by Ron. We know the SWR in each line, the net power being delivered in each line, the power in the forward and reflected waves, and the maximum and peak voltage on each line.

<snip>

> My questions are:

>

> Is the above model right?

As shown by the calculations above, no. It is a very difficult job both mathematically and logically to undertake a time-sequence analysis of transmission line behavior. Usually line behavior is studied in the steady state after all transients have died out and the line is running with a steady wave passing through it. Your conclusions, which seem reasonable as stated, turn out to be in error because of this difficulty of working with a time-sequence of events.

>

> In a typical (now there's a good term!) situation with 10 to 1 ratio of power to
> reflected power what kind of losses will there be, in watts, not dBs? (The
> reason I ask for it in watts is that for most of us it's easier to understand
> the whole relationship if we keep everything in one unit.)

OK, I suppose that you mean a 10 to 1 ratio of forward power to reflected power. The answer is "it depends" on how lossy the line is and how long it is and what it is made of, etc. and how much power we put into the line. No easy answer here.

And keep in mind that the power delivered to the tuner is NOT the forward power and neither is it, in general, the actual power delivered to the antenna load.

If $P_r/P_f = 0.1$, then $\rho = 0.316$. To use absolute numbers, let's assume that 100 watts is the forward power so that the reflected power would be 10 watts. But, knowing nothing about the losses in the line, those numbers tells us nothing by themselves.

We go a step further and assume 100 feet of RG-213 whose matched-line loss factor is 0.56 db at 7 MHz from the "Book." (Sorry, Ron, but can't keep the db's out completely). Now the question is how much *more* loss comes from the mismatch? The SWR in the line at the load end will be

$$SWR = (1+\rho)/(1-\rho) = 1.316/.684 = 1.92$$

or just a bit less than the magic 2:1 figure which most folks accept as a workable SWR. It will be less at the tuner end due to the effects of line loss.

The formula for calculating this added loss is too complicated to try to put in here, so just take my word that I tried not to make any mistakes when I worked it out. The older Handbooks and Antenna Books had graphs of this, but not the new ones! <:}

The answer - worked it twice! - is a total loss of 0.67 db in the mismatched line compared with 0.56 db in the matched line. The mismatch

accounts for only 0.11 db additional loss which is totally negligible. And which is why most folks tend to ignore the losses associated with SWR as low as 2:1 at the lower HF bands.

What would the reflected power really be in the about 300 ohm antenna fed with
> 50 ohm coax. Use whatever value of reactance that might be found in a real
> antenna.

Answered above - we need not complicate matters with load reactance or line and tuner loss.

>
> There was a good bit of work done on antenna tuners by Bob Kellogg awhile back.
> Maybe some numbers from one of the more popular units could be used in the
> example.

No need to introduce tuner losses, Ron, since they tell us nothing educational about how the line is behaving. Their job is to transform impedance and do it with minimum loss and with the capability of handling the power involved.

> Ah..... I think this is a good question that many of us can learn something
> from.

But, you still have not asked your question! I think that it has something to do with Conjugate Matching . . .

In the broadest sense, a conjugate match exists between a source and its load when the load resistance equals the source resistance and the load reactance is the opposite counterpart of the source reactance.

DO NOT CONFUSE THIS WITH THE OPTIMUM LOAD RESISTANCE THAT WE TALKED ABOUT LAST TIME.

As applied to antennas , lines and tuners it works this way. The antenna almost always has a complex feedpoint impedance; only at "resonance" is it purely resistive. The line Z_0 is resistive and unless tuning is done at the antenna to let the line "see" a Z_0 load and zero reactance, then the transmission line will carry standing waves which will affect the input impedance of the line at the tuner as well as having the effects mentioned above.

The tuner in its effort to transform the line input impedance into 50 ohms resistive creates with its inductance(s) and capacitor(s) a network which looks to the transmitter input side like a 50-ohm resistor. To the feedline input though, the tuner output impedance turns out to be very nearly the complex conjugate of the driving-point or input impedance of the antenna as modified by the impedance transformation properties of the line itself!

(You didn't think that thing was just another extension cord, did you?)

I say very nearly, because unless the tuner is absolutely lossless, the story is a lot more complicated, but as a rough overview, this is close enough to be useful. Because of the impedance presented by the tuner to the line, the reflected wave meets essentially a discontinuity with a rho of 1.0 and virtually all the power in the reflected wave is converted into power which proceeds back to the antenna in the forward wave. And so on and so on . . .

Now, it is clear why line loss can be important if it is high enough, the SWR is large enough, the line is long enough, and above all, the frequency is high enough. BTW, because of that line loss, each traveling wave in passing along the line loses some power in I^2R loss in the line conductors and in dielectric loss in the insulation. So, the higher the SWR, the larger the reflected wave and the more power it causes to be lost in the line.

But all these things are relative and have to be kept in perspective. SWR can be relatively high before "bad things happen."

>

> Thanks in advance to all those who chose to answer. Remember please to keep it
> simple for those of us who don't have a good understanding of math.

Not a simple topic to discuss, Ron, but an interesting one, to me at least. I took three transmission line courses in undergrad school and still have to hit the books from time to time! This stuff can be hard as nails and the math can be atrocious, but a simple narrative view of what is happening with a tuner, line and antenna is not that hard to grasp.

I hope that this very long response is of some help to the brave and hardy who managed to last through it! <:} Remember it is all Ron's fault!

And I hope that the DEL key took care of the others.

72/73/00, George W5YR - the Yellow Rose of Texas
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
QRP-L 1373 NETXQRP 6 SOC 262 COG 8 FPQRP 404 TEN-X 11771
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

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Date: Fri, 11 Jan 2002 21:54:56 -0500
From: "Royce Simmons" <w2rbn@prodigy.net>

To: <qrp-l@Lehigh.EDU>
Subject: [117458] Just Testing
Message-ID: <000501c19b14\$859e9ba0\$1e15fe3f@roycesim>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Connectivity Test

Royce G

Date: Fri, 11 Jan 2002 20:58:20 -0600
From: "Craig Johnson" <cbjohns@mn.mediaone.net>
To: <qrp-l@Lehigh.EDU>
Subject: [117459] NorCal 38-Special transceiver manual
Message-ID: <013801c19b15\$01694820\$6601a8c0@CBJP2>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 8bit

In preparing to fix up and/or sell my NorCal 38-Special transceiver, I found that I have misplaced my original construction manual for it. I have a "consolidated construction manual" and lots of QRP-L messages about it, but not the original manual. Thus I have no schematic either.

Would someone be so kind to make me a copy? Thanks!

73,
Craig, AA ZZ

Date: Fri, 11 Jan 2002 20:12:12 -0700
From: tailfeathers@juno.com
To: w5yr@att.net
Cc: qrp-l@Lehigh.EDU
Subject: [117460] Re: ZoneAlarm ?
Message-ID: <20020111.201328.-363159.0.tailfeathers@juno.com>
MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

I see you guys are using ZoneAlarm. I have tried to set it up but it proceeds to ask me several (dozens) times if I want this program to access the internet. Most of the programs are unknown to me with very wierd file names. So I usually get disgusted and give up. I don't know what programs to let have access. :>(

Gary

On Thu, 10 Jan 2002 14:38:38 -0600 "George, W5YR" <w5yr@att.net> writes:

> Bruce, I *THINK* that the upper two lines of bars show data being
> sent UP
> via the Net and coming DN via the Net. The lower two bars seem, from
> their
> behavior, to show the flow of data to and from the program that
> initiated
> the Net access. Red seems to go with data being sent UP and Green
> with data
> coming DN from the Net.
>
> At least that behavior seems to agree with what I have observed
> here. I
> have used Zone Alarm for over a year, and in my mind, it is
> absolutely
> necessary to have running at all times.
>
> 72/73/00, George W5YR - the Yellow Rose of Texas
> Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
> Amateur Radio W5YR, in the 56th year and it just keeps getting
> better!
> QRP-L 1373 NETXQRP 6 SOC 262 COG 8 FPQRP 404 TEN-X 11771
> Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437
>
> All outgoing email virus-checked by Norton Anti-Virus 2002
>
>
> Bruce Ratray wrote:
> >
> > anyone know what the UP_____

| | |
|-----|---------|
| > > | DN_____ |
| > > | UP_____ |
| > > | DN_____ |

> > thingys in the upper left hand corner of
> the Alert
> > screen are used for in Zone Alarm please?...I have noticed red &
> green

> > vertical bars moving through these areas...
> > I also need to e-mail with someone who uses Zone Alarm and knows
> what's
> > going on as I'm in a learning curve here and want to make sure I
> > have it set up right...thank you...
>
>

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<http://dl.www.juno.com/get/web/>.

Date: Fri, 11 Jan 2002 19:18:46 -0800
From: Jerry Parker <jparker@fix.net>
To: qrp-l@LeHigh.edu
Subject: [117461] One More Time with AK1P's correct email
Message-ID: <2.2.32.20020112031846.006bd6c0@fix.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hey guys, we have just put the entire list of subscribers to NorCal's QRPP up on the Web page. Now you can go to the NorCal page and check your subscription status. We will be updating the page quarterly, and the latest revision will be dated so you can keep track of that subscription. Plus, we have a special deal for the first 100 that have expired and missed the fall 2001 issue, you know the one with all of the great one page articles. If you did not receive the Fall 2001 issue and are among the first 100 to renew, you can start your renewal with the Fall 2001 issue. All that you have to do is send a note with your renewal to Jim asking to start the sub with the fall 2001 issue.

All of the subscription info is on the web page at:

Norcal web page address inserted by you here Jerry.

Note: If you have a problem, say we list you as expired and you have paid, contact Paul Maciel at ak1p@arrl.net

Paul is the guy who keeps the NorCal database records.

72, Jerry Parker, WA6OWR, NorCal Webmeister

Date: Fri, 11 Jan 2002 20:28:48 -0700
From: "Rod N0RC" <rod@n0rc.com>
To: "Elecraft-list" <elecraft@mailman.qth.net>,
"Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>,
Cc: <wa8nta@arrl.net>
Subject: [117462] FS: 6ft RG174-BNC cable assembly
Message-ID: <000d01c19b19\$40643040\$6401a8c0@greyrock>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

5 Available: \$4.50 each shipped CONUS (buy all 5 for \$20 shipped CONUS)

These are brand new parts from Jamco:

<https://www.jameco.com/cgi-bin/ncommerce3/ProductDisplay?prmenbr=91&prfibr=2883&cgrfibr=501&ctgys=>

or

<https://www.jameco.com/Jameco/Products/ProdCT/p093.pdf>

Use as is for a nice 6ft test lead, or cut in half for 2, 3ft test leads--BNC on one end, Phone, Phono, Wirenuts ;-)...whatever on the other end. (I'm using some cut in half for my noise generator and other test equipment.)

73, Rod N0RC
Ft Collins, CO

Date: Fri, 11 Jan 2002 20:40:05 -0700 (MST)
From: "Karl F. Larsen" <k5di@zianet.com>
To: Dave Sjolin <sjolin@swbell.net>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [117463] Re: New record holder
Message-ID: <Pine.LNX.4.33.0201112033110.4092-100000@Daisy.dog>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Well Dave, you held the record for many weeks with your 51. And as you say, when you get in the 50's your getting EVERY Hound that's out that day. Sets apart the Cub and Regular Fox Hunt. In a regular hunt on a good day the Fox is busy for 2 hours and has to miss a few.

In the Cub Hunts all you get are bragging rights. I feel real good about my Hound score even though it's not perfect. We all have a life and some evenings when your sitting with your Grandson and realize it's Fox time, you look at him and say nuts.

On Fri, 11 Jan 2002, Dave Sjolín wrote:

> "Karl F. Larsen" wrote:

> >

> > Fred, VE3FAL gave away more pelts than anyone else in the Cub Fox
> > hunt this week. He sent out 58 pelts and his deed can be seen on the web
> > page, along with the leading Hounds. There are no hounds that have worked
> > every Cub Fox, but several have worked most of them.

>

> Fred's 59 is great, especially given that there are fewer than 90 hounds
> with two or more pelts in the Cub Hunts. Way to go, Fred!

>

> 73 de Dave, N0IT

>

--

Yours Truly,

- Karl F. Larsen, k5di@arrl.net (505) 524-3303 -
<http://www.zianet.com/k5di/>

Date: Fri, 11 Jan 2002 21:44:13 -0600
From: "George, W5YR" <w5yr@att.net>
To: tailfeathers@juno.com
Cc: qrp-l@Lehigh.EDU
Subject: [117464] Re: ZoneAlarm ?
Message-ID: <3C3FB10D.8428FFDF@att.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Gary, two suggestions:

Each time the program asks you about giving another program permission, if you are sure one way or the other, either give or deny access, and then

check the little box in the dialog to not ask again about that program.
That should cut down the number of interruptions you are getting.

The real way to tackle this, though, is to bring up the Zone Alarm control Center, got the the Programs, and then just set everything to NOT access the Internet unless you are sure what it is. Those that are not checked for access will cause a flag to jump up when they try and you can look then to see whether it makes sense or not to allow access. In general, I allow only the few programs that I KNOW must have access in order to function, like Netscape, etc.

It is totally under your control and you can even stop the flag from popping up every time if you wish and an automatic denial of access will prevail.

BTW, there is a new release out that you can download.

72/73/00, George W5YR - the Yellow Rose of Texas
Fairview, TX 30 mi NE of Dallas in Collin county EM13qe
Amateur Radio W5YR, in the 56th year and it just keeps getting better!
QRP-L 1373 NETXQRP 6 SOC 262 COG 8 FPQRP 404 TEN-X 11771
Icom IC-756PRO #02121 Kachina #91900556 IC-765 #02437

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tailfeathers@juno.com wrote:

>

> I see you guys are using ZoneAlarm. I have tried to set it up but it
> proceeds to ask me several (dozens) times if I want this program to
> access the internet. Most of the programs are unknown to me with very
> wierd file names. So I usually get disgusted and give up. I don't know
> what programs to let have access. :>(

Date: Sat, 12 Jan 2002 08:22:46 EST
From: Drbob92031@aol.com
To: qrp-l@lehigh.edu
Subject: [117465] HW 8 & PSK31
Message-ID: <38.216caba8.297192a6@aol.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Hi guys;
Advice needed. Before I get involved with PSK 31 I have an HW-8 and I keep

reading about the need of stability of the receiver for PSK31. Does the HW-8 fill the requirement for stability?

Tnx in advance;
72 de WA2EAW.Bob

Date: Sat, 12 Jan 2002 08:27:40 -0500
From: "John J. McDonough" <wb8rcr@arrl.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [117466] Reflector Down?
Message-ID: <000d01c19b6c\$ea31f3c0\$010044c0@chartermi.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="Windows-1252"
Content-Transfer-Encoding: 7bit

Hmmm... when I checked my mail this morning, I didn't get the usual collection of overnight messages on QRP-L. First I thought that perhaps my ISP had decided that QRP-L was spam, and was blocking it. But then I checked the archive and the last message there was the last one in my inbox.

Or maybe the DX just turned great and everyone is on the radio instead of the 'puter.

72/73 de WB8RCR <http://www.qsl.net/wb8rcr>
didileydadidah QRP-L #1446 Code Warriors #35

Date: Sat, 12 Jan 2002 08:32:12 -0500
From: "John J. McDonough" <wb8rcr@arrl.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Cc: <Drbob92031@aol.com>
Subject: [117467] Re: HW 8 & PSK31
Message-ID: <001301c19b6d\$8c71e6e0\$010044c0@chartermi.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Bob

I don't know how much of the problem the stability will be, but PSK-31 expects an SSB rig. You will be able to listen with your HW-8, but not receive. Even listening will be a little messy as most of the programs

expect a nice flat 3Kc or so bandwidth. With any luck at all the filters on your HW-8 are a lot narrower than that.

On the other hand, all you need to do is make up a cable to try receiving, so I'd just have at it. Just slobber a 1/4" phone plug on one end, and a 3.5 mm plug on the other. Download Digipan and away you go. You can see if you are happy with the stability for almost no cost.

72/73 de WB8RCR <http://www.qsl.net/wb8rcr>
didileydadidah QRP-L #1446 Code Warriors #35

----- Original Message -----

From: <Drbob92031@aol.com>

To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>

Sent: Saturday, January 12, 2002 8:22 AM

Subject: HW 8 & PSK31

> Hi guys;
> Advice needed. Before I get involved with PSK 31 I have an HW-8 and I keep
> reading about the nee of stability of the receiver for PSK31. Does the
HW-8
> fill the requirement for stability?
> Tnx in advance;
> 72 de WA2EAW.Bob

Date: Sat, 12 Jan 2002 08:32:52 -0500

From: W2AGN <w2agn@pobox.com>

To: Drbob92031@aol.com,

"Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>

Subject: [117468] Re: HW 8 & PSK31

Message-ID: <02011208325202.02821@CC2289974-A>

Content-Type: text/plain;

charset="iso-8859-1"

MIME-Version: 1.0

Content-Transfer-Encoding: 8bit

On Saturday 12 January 2002 08:22, Drbob92031@aol.com wrote:

> Hi guys;
> Advice needed. Before I get involved with PSK 31 I have an HW-8 and I keep
> reading about the nee of stability of the receiver for PSK31. Does the HW-8
> fill the requirement for stability?
> Tnx in advance;
> 72 de WA2EAW.Bob

--

Ignoring the fact that running PSK31 with a CW-only rig is almost impossible, NO, the stability of an HW-8 would NOT be enough.

John L Sielke W2AGN
w2agn@pobox.com
<http://www.qsl.net/w2agn>
Trustee: W3IYQ

Date: Sat, 12 Jan 2002 08:36:12 -0500
From: W2AGN <w2agn@pobox.com>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [117469] Re: Reflector Down?
Message-ID: <02011208361203.02821@CC2289974-A>
Content-Type: text/plain;
charset="iso-8859-1"
MIME-Version: 1.0
Content-Transfer-Encoding: 8bit

On Saturday 12 January 2002 08:27, John J. McDonough wrote:
> Hmmm... when I checked my mail this morning, I didn't get the usual
> collection of overnight messages on QRP-L. First I thought that perhaps my
> ISP had decided that QRP-L was spam, and was blocking it. But then I
> checked the archive and the last message there was the last on in my inbox.
>
> Or maybe the DX just turned great and everyone is on the radio instead of
> the 'puter.
>
>

Actually, the list was observing a moment of silence for one of it's members who "went under" with the recent stock market downturn, so severely he cannot afford \$15 a year for QRPP. A truly sad story. A Foundation is being set up by the ARRL to provide needed funds for him.

John L Sielke W2AGN
w2agn@pobox.com
<http://www.qsl.net/w2agn>
Trustee: W3IYQ

Date: Sat, 12 Jan 2002 07:02:03 -0700
From: "Rod N0RC" <rod@n0rc.com>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>,
"Elecraft-list" <elecraft@mailman.qth.net>,
Cc: <wa8nta@arrl.net>
Subject: [117470] Re: FS: 6ft RG174-BNC cable assembly
Message-ID: <000301c19b71\$b6a54a20\$6401a8c0@greyrock>
MIME-Version: 1.0
Content-Type: text/plain;
charset="Windows-1252"
Content-Transfer-Encoding: 7bit

All the cables are spoken for.

73, Rod N0RC
Ft Collins, CO

Date: Sat, 12 Jan 2002 09:09:33 -0500
From: Bruce Muscolino <w6toy@erols.com>
To: tracy@bytemark.com
Cc: Low Power Amateur Radio Discussion <qrp-1@lehigh.edu>
Subject: [117471] Re: Conductor size vs calculated length
Message-ID: <3C40439D.98A2677A@erols.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Tracy,

Your antenna book does not cover this type of material, except in theory, because it probably was not available when the book was written! Unless the manufacturer has some experience with it used for an antenna, I would suggest you do an experiment. Cut a one meter length and try to determine its resonant frequency. This will give you an idea.

You could also look at the differences in length of beam antennas compared to wire antennas. Also look at "bow tie" type antennas. They will give you an indication of the changes, but in the end, you will probably have to but and measure anyway!

Date: Sat, 12 Jan 2002 07:42:26 -0700
From: "Rod N0RC" <rod@n0rc.com>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>,
"Elecraft-list" <elecraft@mailman.qth.net>,
Subject: [117472] FS Paddlette BP-K1
Message-ID: <000501c19b77\$5aef4bd0\$6401a8c0@greyrock>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Like new condition, \$40 shipped CONUS.

Picture of actual key at: <http://www.qsl.net/n0rc/pics/bp-k1.jpg>

I acquired this item by way of some horse trading, it is excess to my needs. I already have one! ;-) I used it during the last ARS Sprint to verify it is in proper working order, it works like new.

This is a great key, nice feel and this model fastens directly to the Elecraft K1 tilt-stand. Full details at:
<http://paddlette.com/bp-k1product.htm>

73, Rod N0RC
Ft Collins, CO

Date: Sat, 12 Jan 2002 15:08:38 +0000
From: Larry Cahoon <lejek@erols.com>
To: qrp-l@lehigh.edu
Subject: [117473] Power Management Contest
Message-ID: <5.1.0.14.0.20020112150545.00b7cdc0@pop.erols.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

This contest is today - Starts at 1800z and goes to 0600z. Join in the fun.

Power Management Contest (CW)
Jan 12 - 1800z to Jan 13 - 0600z
Rules: <http://www.qsl.net/wd3p/qrp/pwrcontest/pwrcontest.htm>
"NAQP Piggyback to see how long your battery runs down"

73 de Larry.....WD3P in MD
<http://www.qsl.net/wd3p/>

Date: Sat, 12 Jan 2002 10:15:23 EST
From: n5ib@juno.com
To: qrp-1@Lehigh.edu
Subject: [117474] QST - searching for May 76 issue
Message-ID: <20010112.090840.4631.0.n5ib@juno.com>

Does anyone have the May 1976 issue of QST (the one with the DeMaw Tuna Tin 2 on the cover) they would be willing to loan for a few weeks to be part of a QRP ham radio exhibit at our public observatory here in Baton Rouge LA?

I'll pay priority postage both ways and it will be kept in a locked glass display case along with the March 2000 issue and several renditions of the TT2, as well as other QRP rigs.

72
Jim N5IB

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<http://dl.www.juno.com/get/web/>.

Date: Sat, 12 Jan 2002 10:21:51 -0500
From: Fred Lesnick <flesnick@tbaytel.net>
To: QRPL <qrp-1@Lehigh.EDU>, "QFOX@egroups.com" <QFOX@egroups.com>
Subject: [117475] Cub Hunt Final Log
Message-ID: <3C40548F.591BAF28@tbaytel.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Even though Karl already posted the results , here is the last corrected log.
Thanks to all for making the hunts a pleasure to work.

Fred
VE3FAL

CUB FOX HUNT JAN 8(9Z)

| TIME | CALL | RPT | SPC | NAME | PWR |
|------|--------|-----|-----|--------|-----------|
| 200 | W0CH | 559 | MO | DAVE | 900mw |
| 201 | K0EVZ | | 599 | ND | DOC 3W |
| 201 | W0IS | 599 | MN | RICK | 5W |
| 202 | W5YR | 559 | TX | GEORGE | 5W |
| 204 | K8MIA | | 559 | WV | JIM 5W |
| 205 | AA50 | 559 | LA | VERN | 5W |
| 207 | K4ADI | | 559 | SC | FRANK 5W |
| 208 | K4BYF | | 559 | FL | JACK 5W |
| 209 | WE9K | 599 | WI | GLENN | 5W |
| 210 | AC5JH | | 559 | OK | TOM 5W |
| 211 | K5JHP | | 559 | TX | BILL 5W |
| 212 | W8VJW | | 559 | MI | JOHN 5W |
| 214 | K8KFJ | | 599 | WV | GARY 5W |
| 214 | K4GT | 559 | GA | JIM | 5W |
| 215 | VA6RF | | 579 | AB | EARL 5W |
| 217 | K8CV | 559 | MI | WALT | 5W |
| 218 | WB6BWZ | | 559 | GA | MATT 5W |
| 219 | AF4PS | | 559 | FL | MAC 3W |
| 220 | WR50 | 559 | TX | DAVE | 5W |
| 221 | K4FB | 559 | FL | PAUL | 5W |
| 222 | WA8WV | | 559 | WV | DAVE 1W |
| 224 | AB5XQ | | 559 | AR | BILL 5W |
| 225 | W5USJ | | 559 | TX | CHUCK 5W |
| 226 | KC1FB | | 559 | CT | JIM 5W |
| 227 | KK5LD | | 559 | TX | JIM 5W |
| 228 | N1TP | 559 | FL | TOM | 5W |
| 229 | W3CD | 559 | CA | BOB | 5W |
| 230 | AG0T | 559 | ND | TODD | 4W |
| 231 | VE4WI | | 559 | MB | CRAIG 5W |
| 232 | K1KID | | 549 | MA | CARL 5W |
| 233 | WA8BXN | | 589 | OH | MIKE 5W |
| 234 | KB1DXC | | 559 | CT | MIKE 5W |
| 235 | N3BJ | 559 | VA | ALAN | 5W |
| 236 | KB3E0F | | 559 | MD | SANDY 5W |
| 237 | N10DL | | 559 | NH | ARON 4W |
| 238 | KE6TI | | 559 | IN | HAROLD 3W |
| 240 | K5DI | 559 | NM | KARL | 5W |
| 242 | KB7WW | | 559 | OR | ART 5W |
| 245 | K2VT | 559 | NJ | RANDY | 50W |
| 248 | KV4EE | | 559 | SC | CRAIG 5W |
| 253 | W2YN | 559 | FL | FRED | 5W |
| 258 | KC0GXX | | 599 | NE | TOM 1W |
| 300 | KG4LDY | | 559 | VA | JIM 5W |
| 305 | AJ4AY | | 559 | AL | JAY 5W |
| 306 | N5GJQ | | 559 | LA | MIKE 5W |
| 309 | KG4CHX | | 549 | NC | TIM 5W |

| | | | | | | |
|-----|--------|-----|----|-------|----|--|
| 312 | NØRC | 559 | CO | ROD | 2W | |
| 313 | AD4IH | 559 | FL | JOE | 5W | |
| 315 | W4BQP | 559 | NC | JIM | 5W | |
| 318 | KB1FKL | 559 | CT | MATT | 5W | |
| 321 | KC9LC | 559 | VA | RANDY | 5W | |
| 330 | KI0JQ | 599 | MO | LES | 5W | |
| 341 | K5OGX | 559 | AR | PHIL | 5W | |
| 345 | KI0II | 559 | CO | RON | 3W | |
| 349 | WA9TZE | 539 | WI | JIM | 5W | |
| 351 | KL7IXI | 549 | WA | MIKE | 4W | |
| 353 | AF4AT | 539 | SC | JIM | 2W | |
| 400 | VE3FAL | FOX | ON | FRED | 5W | |

Date: Sat, 12 Jan 2002 08:31:54 -0700
 From: "Rod NØRC" <rod@n0rc.com>
 To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>,
 "Elecrafft-list" <elecrafft@mailman.qth.net>,
 Subject: [117476] Re: [NCARC] FS Paddlette BP-K1
 Message-ID: <005a01c19b7e\$43f99820\$6401a8c0@greyrock>
 MIME-Version: 1.0
 Content-Type: text/plain;
 charset="iso-8859-1"
 Content-Transfer-Encoding: 7bit

----- Original Message -----
 From: "Rod NØRC" <rod@n0rc.com>
 To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>;
 "Elecrafft-list" <elecrafft@mailman.qth.net>; "cqc-l"
 <CQCLIST@yahoogroups.com>; <ncarc@qth.net>
 Sent: Saturday, January 12, 2002 7:42 AM
 Subject: [NCARC] FS Paddlette BP-K1

> Like new condition, \$40 shipped CONUS.
 >

SOLD!

The early bird gets the worm, errrrr....key! ;-)

R.

Date: Sat, 12 Jan 2002 10:53:06 -0500
From: "Ron Polityka" <wb3aal@fast.net>
To: ".Mtn-Top" <HamRadio_Mountaintopping@yahoogroups.com>,
".HF Pack" <hfpack@yahoogroups.com>, ". QRP-L" <qrp-l@Lehigh.EDU>,
Subject: [117477] AT in PA on Jan 12
Message-ID: <000901c19b81\$3ad04a20\$b3645cd1@wb3aal>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Hello Everyone,

I am heading out the door at 16:00 UTC.

Should be on the air by 17:00 UTC on the Appalachian Trail in PA.

I will be operating on 10.106 & 18.096 MHz only due to the NA CW QP
which starts around then.

I will be operating at my winter spot North of Rte. 183 in Berks county.

Should be on the air for two hours or until the cold set in.

72 & 73
Good DXing

Ron Polityka
de WB3AAL
wb3aal@fast.net

vvv Eastern Pennsylvania QRP Web Page vvv
<http://www.n3epa.org>

Eastern Pennsylvania QRP Club Call
N3EPA E-mail address: n3epa@fast.net

| | |
|-----------------|--------------------|
| EPA QRP #1 | ARRL Life Member |
| KL7 QRP # 309 | G-QRP # 3031 |
| ARCI QRP # 5318 | 10 - X #13173 |
| NorCal | ARS # 380 |
| HI QRP #153 | VA QRP Society #45 |
| MI QRP #1703 | K2 sn1392 |
| NJ QRP #179 | ARLHS #423 |
| K1 sn1011 | |

Date: Sat, 12 Jan 2002 09:03:09 -0700
From: "James R. Duffey" <jamesd1@flash.net>
To: <mswmod@bigplanet.com>
Cc: qrp-1 <qrp-1@lehigh.edu>
Subject: [117478] Re: Conjugate Matching
Message-ID: <B865AC4C.1056D%jamesd1@flash.net>
Mime-version: 1.0
Content-type: text/plain; charset="US-ASCII"
Content-transfer-encoding: 7bit

Ron - The scenario suggested by Jim Larsen in those old shop notes is not a bad way to look at the world. As George rightly points out though it is much easier to look at things in the steady state. And this is valid in Ham Radio applications. A single cycle at 160 M (say 2 MHz to keep the calculations simple) takes about a half a microsecond, while a high speed dit takes about 20 milliseconds. So we can safely use the steady state solution as this high speed has 10s of thousands of cycles in it.

George worked out the math. If you don't want to do that, you can use the tables on page 30.25 of the 2001 ARRL Handbook to get from reflection coefficient to SWR.

The folks at ARRL have listened and the tables showing additional loss as a function of SWR and matched line loss are back as Figure 19-5 in the same Handbook.

For your example, the SWR is about 1.9:1. It is useful to look at some real world examples to see what impact this has on feedline losses.

For 100 ft of feedline, losses from 2001 Handbook Figure 19-4

| Frequency | R-213 Matched Loss | Additional "SWR" loss | Total Loss |
|-----------|--------------------|-----------------------|------------|
| 3.5 | 0.4 dB | <0.1 dB | 0.5 dB |

Not enough additional to worry about right?

Now for 100 ft of RG-58

| Frequency | R-58 Matched Loss | Additional "SWR" loss | Total Loss |
|-----------|-------------------|-----------------------|------------|
| 3.5 | 0.8 dB | 0.18 dB | 0.98 dB |

Still not much to worry about.

At 10 meters, 28 MHz, the line loss goes up. Do things get different?

| Frequency | R-213 Matched Loss | Additional "SWR" loss | Total Loss |
|-----------|--------------------|-----------------------|------------|
|-----------|--------------------|-----------------------|------------|

| | | | |
|--------|--------|---------|--------|
| 28 MHz | 1.3 dB | 0.22 dB | 1.5 dB |
|--------|--------|---------|--------|

So although the matched line loss has grown, the additional loss due to SWR is still pretty small and probably not worth worrying about. Now lets look at that RG-58,

| Frequency | R-58 Matched Loss | Additional "SWR" loss | Total Loss |
|-----------|-------------------|-----------------------|------------|
|-----------|-------------------|-----------------------|------------|

| | | | |
|--------|--------|---------|---------|
| 28 MHz | 2.6 dB | 0.35 dB | 2.95 dB |
|--------|--------|---------|---------|

The matched line loss here is quite high, unacceptable for me at least, but the additioanl loss due to the 1.92 :1 SWR is not objectionable. It is startng to get to my threshold of loss, 0.5 dB. This is where I start to think the losses get important.

Consider an 80 M dipole cut for 3.75 MHz, the center of the band. It will have an SWR of about 5:1 at the band edges when fed with 50 Ohm coax. When fed with RG-213 this will only add about 0.5 dB loss at the band edges. With RG-58 it will add about 0.8 dB, which is starting to get noticable, but still within the realm of worrisome, but still probably OK.

You get the picture. As the matched line loss goes up with frequency, the loss due to SWR will grow. If you can pick a loss number that is acceptable to you, you can determine a feedline and loss number that are also acceptable. In most cases the "acceptability" of the losses are driven by what one is willing to pay for feedline.

I hope that this helps. - Dr. Megacycle KK6MC/5 "Radio Green Chile"

--

James R. Duffey KK6MC/5
Cedar Crest, NM DM65

Date: Sat, 12 Jan 2002 11:27:11 -0500
From: Dave Pomeroy <dave@dpomeroy.com>
To: QRP-L <qrp-l@Lehigh.EDU>
Subject: [117479] crystals
Message-ID: <5.1.0.14.0.20020112112556.009ea7d0@mail.dpomeroy.com>
Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"; format=flowed

Must have received 20 messages on the where to buy crystals question. Thanks everyone for the help. The consensus is International Crystal. Thanks again.

Dave Pomeroy K8DNP South Western Michigan

Date: Sat, 12 Jan 2002 10:29:18 -0600 (CST)
From: Bruce Rattray <rattray@gpfn.sk.ca>
To: <tailfeathers@juno.com>
Cc: QRP-Canada <qrp-canada@neale.gpfn.sk.ca>,
Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [117480] Re: ZoneAlarm ?
Message-ID: <Pine.LNX.4.33.0201121005450.1774-1000000@neale.gpfn.sk.ca>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi Gary et al...I'm working with Zone Alarm at the present time and trying to learn and understand it...my posting asking for help has resulted in several very helpful replies...

...many users of ZA have reported "watching" hackers, I guess, trying to get into their computers but I've yet to see this and at this stage I'm not sure how to watch this; maybe it's the ALERT screen....

...another thing I'm not sure about is this; do I have to double click on ZA & AVG to get them going after I have accessed the internet to check my mail or looking at the lower right-hand corner of the computer screen, I see little icons and I see an AVG and a ZA icon, so maybe this mean these pgms are already up and running so I don't have to double-click and get them going?...

...this next thing is funny....I kept wondering that there should be a HELP file but where ever I looked I couldn't find one...one of the replies clued me in...in the upper right-hand corner of the ZA display is the word HELP but I kept on missing it mainly because I didn't "look" and see the faded yellow colouring of the letters...hihihi...duh....of course you have to realize that I can easily put something down, turn around and then spend half an hour trying to find it, if at all....HAR!...

...I'm presently printing out the HELP files and I'm sure I will have a much better understanding of the pgm after my "read"...I'll have to buy

new print cartridges for my HP-940C today so I can finish the printing...the black cartridge shows an "about-to-run-out" level; Murphy's law eh!?!...but then I will have a nice reference manual for Zone Alarm....

...I am having some weird little troubles since the install of ZA; such as an "illegal" screen keeps popping up and I have trouble now dialing my internet server but usually get it to work after several tries and often now my computer locks up so I have to reboot a few times until things get going again, etc....but I'll stick with it...I did try ZA a couple of months back but things were so screwed up that I uninstalled it...

...so now I'm having more success with it this time around...I hope this posting helps others who might be having problems on the learning curve...
...please don't tell me I'm the only one eh!?!....hihihi....

..72/73 - Bruce (VE5RC+VE5QRP) QRP-C#1 QRP-L#886 ARCI#9683 Zombie#272
A-1 Operator Club - 10/10# 944 - QRP Borg#1 - Whiner#10 -
- VE5QRP SOC#11 - VE5RC SOC#12 - oo#148 - K2#2032 - COG#15 -
- Zone Alarm + AVG Virus Protection -
"QRP! How sweet it is!" "I am da man wit "DAH" paddle!"

Date: Sat, 12 Jan 2002 12:20:42 -0500
From: "N8IE" <n8ie@woh.rr.com>
To: "K8FP" <k8fp@worldnet.att.net>, "QRP-1" <qrp-1@lehigh.edu>,
"FPQRP-1" <fpqrp-1@mpna.com>
Cc: <hubby2k@hotmail.com>
Subject: [117481] Truffle Hunt de K8FP V1.1
Message-ID: <MMEDLKDLONJOAIGICDJAIEKGCFAA.n8ie@woh.rr.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

One call correction for Mike, WA8BXN. Sorry for the type Mike.

0130 w5yr 559 tx george 5w
0132 w8diz 559 oh diz 5w
0133 k8cv 559 mi walt 5w
0134 k4gt 559 ga jim 5w
0135 n9ne 569 wi toby 5w
0137 w4bqp 579 nc jim 5w
0138 k5jhp 559 tx bill 5w

0139 w0ch 579 mo dave 900mw
0140 kg4ldy 559 va jim 5w
0141 af4ps 559 fl mac 5w
0143 we9k 559 wi glenn 5w
0144 wv9n 559 oh roby 5w
0145 ke6ti 599 in harold 3w
0147 wa8bxn 559 oh mike 5w
0148 k0evz 559 nd doc 5w
0149 k8cz 559 oh tom 5w
0150 k8mia 559 wv jim 5w
0151 w5usj 559 tx chuck 5w
0153 nu8s 559 oh dennis 5w
0154 w9hl 559 il randy 5w
0155 ac5jh 559 ok tom 5w
0156 n8var 559 oh ron 5w
0158 wa8wv 559 wv dave 500mw
0159 wb6bwz 579 ga matt 5w
0159 k9ut 559 in jerry 5w

72, oo

Dan, N8IE

FPQRP #-6, FISTS #4985

QRP-1 #1404, ARCI #11003

Date: Sat, 12 Jan 2002 10:20:20 -0700
From: "James R. Duffey" <jamesd1@flash.net>
To: "Karl F. Larsen" <k5di@zianet.com>
Cc: qrp-1 <qrp-1@lehigh.edu>
Subject: [117482] Audio Filters and AGC
Message-ID: <B865BE5D.10574%jamesd1@flash.net>
Mime-version: 1.0
Content-type: text/plain; charset="US-ASCII"
Content-transfer-encoding: 7bit

Karl - Thanks for your comments about using Audio Filters with a rig with a wide bandwidth and AGC.

I guess I should have stated that selectivity should occur as soon as possible in the receive chain, and that an audio filter is no substitute for good narrow IF filters.

Turning off the AGC and riding the RF and AF gain can do wonders for weak signal reception, particularly in the presence of strong signals. When I am shopping for a rig, one of the things on my "want list" is defeatable AGC. Not only does it improve reception under certain conditions, it is a must if

you want to use the receiver for signal strength measurements. It makes the use of a noise bridge much easier as well.

The main rig here is a TS-850 with narrow filters and defeatable AGC. Turned down to 5 watts of course. I used this rig with DaTong FL-3 as a Fox two years ago and with the DSP-9 as a fox a year ago. With the TS-850 narrowed down, and the DSP in the 100 Hz position I had no trouble picking out stations. I also used this combination in sweepstakes and other contests. It makes a world of difference. The AGC can be turned off.

I also use the audio filters with my newly acquired K-1. It has a 3 position narrow CW filter and defeatable AGC. Goes well with the active filters.

I also have an old HQ-170 with defeatable AGC and narrow L-C filters in the IF. The audio filters add a lot to this rig. I have listened to fox hunts with this rig on the narrow setting and the DaTong filter. One can use the tunable 2nd local oscillator to pick off stations one by one. It really is amazing.

I have several rigs that have no provision for narrow IF filters. Audio filters really add a lot to the use of these rigs. These include an old Kenwood multimode 2 M rig, a Radio Shack HTX-100, and an Icom 551D for 6 M. Weak signal reception, particularly on CW, is greatly improved.

The audio filters, particularly the DSPs with active noise reduction, are quite useful when the signal is dominated by white noise. I find them very useful for satellite work.

Some of the DSPs, like the DSP 59 +, have built in AGC. This is usually used to keep the signal within the dynamic range of the A/D converter, but it also can be used to save one's ears.

I hope that these comments on audio filters are useful. - Duffey

--

James R. Duffey KK6MC/5
Cedar Crest, NM DM65

Date: Sat, 12 Jan 2002 09:23:16 -0800 (PST)
From: Jim Cluett <w1pid@yahoo.com>
To: qrp-l@lehigh.edu

Subject: [117483] WB3AAL on AT now
Message-ID: <20020112172316.95016.qmail@web11605.mail.yahoo.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

Ron WB3AAL is on the AT now in PA with
is K-2. 569 in NH at 1717 UTC
w1pid@arrl.net

Do You Yahoo!?
Send FREE video emails in Yahoo! Mail!
<http://promo.yahoo.com/videomail/>

Date: Tue, 12 Feb 2002 12:24:19 -0500
From: John Harper AE5X <ae5x@qsl.net>
To: QRP-L <qrp-l@lehigh.edu>
Subject: [117484] FS: 20/30m band modul for K1
Message-ID: <002301c1b3ea\$1b38a1e0\$64e85043@johnharp>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

Excellent condition, no longer needed. \$20.

John Harper AE5X
Outdoor QRP & Lowband DXing: <http://www.qsl.net/ae5x>

Date: Sat, 12 Jan 2002 12:27:15 -0500
From: "John J. McDonough" <wb8rcr@arrl.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [117485] Trouble Posting?
Message-ID: <013101c19b8e\$655dec40\$010044c0@chartermi.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="Windows-1252"
Content-Transfer-Encoding: 7bit

Recently a lot of folks have been reporting trouble posting to the list.
This morning, I got a direct email from someone who has also been having
trouble posting.

On comparing the headers from the email he sent me with earlier successful posts, it appeared that he had upgraded his version of Eudora from 5.0.2 to 5.1. More interesting, the newer version sent his email as a multipart message, even though it only contained one part, and that part was plain text. Although I'm not the list admin, and can't say for sure, I am pretty confident that the reflector will reject a multipart message, even if it has only one part.

If you are a Eudora user, and know how to set the newer version up so it will send a single part message, perhaps you can enlighten those folks who can't post (and consequently can't ask!)

Barring that, if you are having trouble posting with Eudora, you might try backing off to version 5.0.something and see if that helps. I wouldn't go too far back, though, Eudora used to have a problem where it sent improperly formatted messages that properly configured mail readers interpreted as empty. The newer versions of M\$ mail readers now recognize this bug and work around it, but someone with an older mailer, or even a newer mailer that adheres to the standards, could (correctly) interpret your mail as blank!

72/73 de WB8RCR <http://www.qsl.net/wb8rcr>
didileydadidah QRP-L #1446 Code Warriors #35

Date: Sat, 12 Jan 2002 12:27:26 EST
From: PDouglas12@aol.com
To: qrp-l@lehigh.edu
Subject: [117486] FS: SWL PSK 20 and 30
Message-ID: <22.21ec79ab.2971cbfe@aol.com>
MIME-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Hi Guys,

I have two PSK rigs from Small Wonder Labs for sale. I built these before the manuals were in their final form to help beta the construction, and so the manuals I have are not complete. Dave Benson, owner of SWL has graciously agreed to provide me with the current manuals, and they will be provided with the rigs. I have the PSK 20 and PSK 30 for sale. They are both in the SWL case, complete and working very well. On the PSK 20 the three round connector holes were neatly drilled out a bit to pass the fat barreled Radio Shack adapters I use, but there is little or no cosmetic

difference. I will of course guarantee both or your money back. I would like \$95 each, shipped. This is probably about \$40 under retail, and they're built for you. Email me if you're interested.

I also still have the QRP 20 from Radiokit. Since I got no offers at \$95, I'll sell it for \$85, shipped. Any takers? This is the original Littlefield single board design for the '602 transceiver with relay semi-QSK. It will do about 2 watts. Email if interested.

Preston WJ2V

Date: Sat, 12 Jan 2002 12:31:35 -0500
From: "John J. McDonough" <wb8rcr@arrl.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [117487] Re: Audio Filters and AGC
Message-ID: <013501c19b8e\$fd4e1a20\$010044c0@chartermi.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

I have an Icom 706MkII, which is a lovely rig. However, it does not have a 'defeatable' AGC. (There is an AGC menu choice, but it only affects the AGC speed.) This is a significant problem for PSK-31. Keep this in mind if the digital modes are in your plan. Also be aware that just because you see an AGC control, it doesn't mean you can turn the thing off.

72/73 de WB8RCR <http://www.qsl.net/wb8rcr>
didileydadidah QRP-L #1446 Code Warriors #35

----- Original Message -----
From: "James R. Duffey" <jamesd1@flash.net>
Subject: Audio Filters and AGC

> When I am shopping for a rig, one of the things on
> my "want list" is defeatable AGC.

Date: Sat, 12 Jan 2002 09:40:10 -0800 (PST)
From: Jim Cluett <w1pid@yahoo.com>
To: qrp-l@lehigh.edu
Subject: [117488] WB3AAL still on AT

Message-ID: <20020112174010.76218.qmail@web11603.mail.yahoo.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

Ron WB3AAL is still on the AT
at 1740Z on 10.105 mhz. Jim w1pid@arrl.net

Do You Yahoo!?
Send FREE video emails in Yahoo! Mail!
<http://promo.yahoo.com/videomail/>

Date: Tue, 12 Feb 2002 13:58:45 -0500
From: John Harper AE5X <ae5x@qsl.net>
To: QRP-L <qrp-l@lehigh.edu>
Subject: [117489] K1 20/30m module has been SOLD.
Message-ID: <002701c1b3f7\$4c426c00\$64e85043@johnharp>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

John Harper AE5X
Outdoor QRP & Lowband DXing: <http://www.qsl.net/ae5x>

Date: Sat, 12 Jan 2002 12:01:36 -0700 (MST)
From: "Karl F. Larsen" <k5di@zianet.com>
To: "James R. Duffey" <jamesd1@flash.net>
Cc: "Karl F. Larsen" <k5di@zianet.com>, qrp-l <qrp-l@lehigh.edu>
Subject: [117490] Re: Audio Filters and AGC
Message-ID: <Pine.LNX.4.33.0201121153280.2587-1000000@Daisy.dog>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi James, I just looked at the book for my prize radio, the Yaesu FT-817 and was pleased to see that with proper menu setting it has an RF and AF gain control AND you can turn AGC off! So it's a QRP radio capable of good external Audio Filter use. By contrast my Kenwood TS-50 has no RF gain control but does have 3 attenuator settings which are inadequate, and the AGC is always on.

I have the audio filter made for the Ten Tec Argonaut 509 and it

works very well because the AGC is taken from the OUTPUT of the filter. It sounds good and works well too.

On Sat, 12 Jan 2002, James R. Duffey wrote:

> Karl - Thanks for your comments about using Audio Filters with a rig with a
> wide bandwidth and AGC.
>
> I guess I should have stated that selectivity should occur as soon as
> possible in the receive chain, and that an audio filter is no substitute for
> good narrow IF filters.
>
> Turning off the AGC and riding the RF and AF gain can do wonders for weak
> signal reception, particularly in the presence of strong signals. When I am
> shopping for a rig, one of the things on my "want list" is defeatable AGC.
> Not only does it improve reception under certain conditions, it is a must if
> you want to use the receiver for signal strength measurements. It makes the
> use of a noise bridge much easier as well.

--

Yours Truly,

- Karl F. Larsen, k5di@arrl.net (505) 524-3303 -
<http://www.zianet.com/k5di/>

Date: Sat, 12 Jan 2002 12:03:36 -0700
From: "James R. Duffey" <jamesd1@flash.net>
To: "Karl F. Larsen" <k5di@zianet.com>
Cc: qrp-l <qrp-l@lehigh.edu>
Subject: [117491] Re: Audio Filters and AGC
Message-ID: <B865D698.10587%jamesd1@flash.net>
Mime-version: 1.0
Content-type: text/plain; charset="US-ASCII"
Content-transfer-encoding: 7bit

KARl - Yes the 817 is quite a versatile radio.

Can you turn off the AGC on the Argonaut?

The single conversion radios allow one to put very sharp selectivity after the first mixer stage, allowing very good performance against off frequency stations, including AGC.

Audio derived AGC has a whole other set of problems, but can be pretty good if done right. - Duffey

--

James R. Duffey KK6MC/5
Cedar Crest, NM DM65

Date: Sat, 12 Jan 2002 12:05:21 -0700
From: "James R. Duffey" <jamesd1@flash.net>
To: <qrp-l@lehigh.edu>
Subject: [117492] Re: FS: 20/30m band modul for K1
Message-ID: <B865D700.10588%jamesd1@flash.net>
Mime-version: 1.0
Content-type: text/plain; charset="US-ASCII"
Content-transfer-encoding: 7bit

John - If this has not sold, I would be interested in it. - Duffey

--

James R. Duffey KK6MC/5
Cedar Crest, NM DM65

Date: Sat, 12 Jan 2002 14:15:59 -0500
From: "Jim Kortge, K8IQY" <jokortge@prodigy.net>
To: qrp-l@lehigh.edu
Subject: [117493] 4.9152 MHz Crystal data
Message-ID: <5.1.0.14.1.20020112141132.00a1c010@pop.prodigy.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

Gang,

Rod, N0RC was interested in crystal parameter data for 4.9152 MHz crystals. I have some of that, and am sharing it for those who are interested.

Sample - Vishay/Dale 4.9152 MHz series (Mouser part 73-XT49U491-S)

(Parameters computed from DeltaF)

| Sample | Fs | DeltaF | Fp | Rs | Co | Lm | Cm | Q |
|--------|---------|--------|---------|------|----------|-------|----|-----------|
| 1 | 4915209 | 96 | 4924797 | 19.5 | 3.59E-12 | 0.074 | | 1.421E-14 |
| | 116841 | | | | | | | |

| | | | | | | | |
|-----|-------------------|----|---------|------|----------|-------|-----------|
| 2 | 4915225 196132 | 81 | 4924928 | 11.2 | 3.59E-12 | 0.071 | 1.474E-14 |
| 3 | 4915231 196309 | 79 | 4924951 | 11.6 | 3.53E-12 | 0.074 | 1.422E-14 |
| 4 | 4915233 150846 | 88 | 4924848 | 14.7 | 3.58E-12 | 0.072 | 1.460E-14 |
| Avg | 4915225 165032 | 86 | 4924881 | 14.3 | 3.57E-12 | 0.073 | 1.444E-14 |

Sample - Fox 4.9152 MHz series (Mouser part 559-FOX049)

(Parameters computed from DeltaF)

| Sample | Fs | DeltaF | Fp | Rs | Co | Lm | Cm | Q |
|--------|-------------------|--------|---------|------|----------|-------|----|-----------|
| 1 | 4915206 186936 | 82 | 4924791 | 11.8 | 3.65E-12 | 0.071 | | 1.468E-14 |
| 2 | 4915202 178421 | 84 | 4924858 | 12.2 | 3.62E-12 | 0.070 | | 1.488E-14 |
| 3 | 4915169 148441 | 91 | 4925304 | 14.3 | 3.64E-12 | 0.069 | | 1.525E-14 |
| 4 | 4915174 156005 | 89 | 4925188 | 13.7 | 3.65E-12 | 0.069 | | 1.515E-14 |
| Avg | 4915188 167451 | 87 | 4925035 | 13.0 | 3.64E-12 | 0.070 | | 1.499E-14 |

72 to all,

Jim, K8IQY

Date: Sat, 12 Jan 2002 14:27:15 -0500
 From: "Dave Benham" <dodgeboy@mindspring.com>
 To: <qrp-l@lehigh.edu>
 Subject: [117494] BLT front panel dimensions?
 Message-ID: <009901c19b9f\$25a41460\$3bd179a5@hqa.chrysler.com>
 MIME-Version: 1.0
 Content-Type: text/plain;
 charset="iso-8859-1"
 Content-Transfer-Encoding: 7bit

I am attempting to build a NorCal BLT tuner kit and have a question about

the dimensions given for the holes on the front panel. I've emailed KI6DS, whose name I see in the copyright, but thought I'd ask the list, too. I was kinda hot to do this today.

The up/down dimensions on the front panel are shown to be 11/32", 1/2" and 1", but only the 1/2" and 1" dimension seems to line up with the crosshairs for its hole -- the 11/32" seems to be way off. The graphics for the 6 holes in line with each other appear to be halfway between the top and bottom, which would mean a callout of 3/4".

I bought this kit used, so if an errata sheet was later posted to original buyers, I didn't get it.

So is there anyone out there who built one of these who has the correct up/down dimensions for the front panel? Thanks.

73,
Dave K8TRF

Date: Sat, 12 Jan 2002 14:51:40 -0500
From: "Mike Branca" <w3irz@att.net>
To: <qrp-1@Lehigh.EDU>
Subject: [117495] Georgia Sierra?
Message-ID: <018601c19ba2\$8e1c2160\$83eb5b0c@default>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Starting in early 1999 the NoGa QRP club came up with its version of the ARRL handbook Sierra (compliments of Wayne Burdick N6KR) where the rig was re frequencied (among other changes) to use common computer crystals instead of using special order crystals. It was published in the January issue of ARCI's QQ. Now that a number have been constructed both here and abroad we would like to issue serial numbers just for the fun of it.

So if you have completeed a Georgia Sierra please advise me of the completion date. Completion may be confirmed by completion of a QSO on any band. Please send me the QSO date and your name and call.

The list will be published soon. TNX.

Mike Branca W3IRZ in Conyers Georgia

Date: Sat, 12 Jan 2002 19:55:02 +0000
From: Larry Cahoon <lejek@erols.com>
To: wb8rcr@arrl.net,
"Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Subject: [117496] Re: Trouble Posting?
Message-ID: <5.1.0.14.0.20020112195309.0222f390@pop.erols.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

Don't look at Eudora too hard. I've been using 5.1 since at least October with not problems posting to the list. I didn't do anything special - just download the newest version when I got the new PC and ran with it. I did nothing special.

73 de Larry.....WD3P in MD
<http://www.qsl.net/wd3p/>

At 12:27 PM 1/12/2002 -0500, John J. McDonough wrote:

>Recently a lot of folks have been reporting trouble posting to the list.
>This morning, I got a direct email from someone who has also been having
>trouble posting.
>
>On comparing the headers from the email he sent me with earlier successful
>posts, it appeared that he had upgraded his version of Eudora from 5.0.2 to
>5.1. More interesting, the newer version sent his email as a multipart
>message, even though it only contained one part, and that part was plain
>text. Although I'm not the list admin, and can't say for sure, I am pretty
>confident that the reflector will reject a multipart message, even if it has
>only one part.
>
>If you are a Eudora user, and know how to set the newer version up so it
>will send a single part message, perhaps you can enlighten those folks who
>can't post (and consequently can't ask!)
>
>Barring that, if you are having trouble posting with Eudora, you might try
>backing off to version 5.0.something and see if that helps. I wouldn't go
>too far back, though, Eudora used to have a problem where it sent improperly
>formatted messages that properly configured mail readers interpreted as
>empty. The newer versions of M\$ mail readers now recognize this bug and
>work around it, but someone with an older mailer, or even a newer mailer
>that adheres to the standards, could (correctly) interpret your mail as
>blank!
>
>72/73 de WB8RCR <http://www.qsl.net/wb8rcr>
>didileydadidah QRP-L #1446 Code Warriors #35

Date: Sat, 12 Jan 2002 12:55:36 -0700
From: tailfeathers@juno.com
To: rattray@gpfn.sk.ca
Cc: qrp-canada@neale.gpfn.sk.ca, qrp-1@Lehigh.EDU
Subject: [117497] Re: ZoneAlarm ?
Message-ID: <20020112.130530.-489219.0.tailfeathers@juno.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

I completely removed ZA and installed AD-Aware. After that I reinstalled ZA and will try repeat try to figure out what the programs are that asked for internet access. I see that they withhold a key part of ZA that tells you more about the spyware. I keep my Norton AV up to date so I just think I was being spied on as Ad-Aware did remove some spyware. Lets muddle our way through this. :>)

Gary
n8gsj/7

On Sat, 12 Jan 2002 10:29:18 -0600 (CST) Bruce Rattray
<rattray@gpfn.sk.ca> writes:

>
> Hi Gary et al...I'm working with Zone Alarm at the present time and
> trying
> to learn and understand it...my posting asking for help has resulted
> in
> several very helpful replies...
>
> ...many users of ZA have reported "watching" hackers, I guess,
> trying to
> get into their computers but I've yet to see this and at this stage
> I'm
> not sure how to watch this; maybe it's the ALERT screen....
>
> ...another thing I'm not sure about is this; do I have to double
> click on
> ZA & AVG to get them going after I have accessed the internet to
> check my
> mail or looking at the lower right-hand corner of the computer
> screen, I
> see little icons and I see an AVG and a ZA icon, so maybe this mean
> these
> pgms are already up and running so I don't have to double-click and
> get

> them going?...

>

> ...this next thing is funny....I kept wondering that there should be

> a

> HELP file but where ever I looked I couldn't find one...one of the

> replies

> clued me in...in the upper right-hand corner of the ZA display is

> the word

> HELP but I kept on missing it mainly because I didn't "look" and see

> the

> faded yellow colouring of the letters...hihihi...duh....of course

> you have

> to realize that I can easily put something down, turn around and

> then

> spend half an hour trying to find it, if at all....HAR!...

>

> ...I'm presently printing out the HELP files and I'm sure I will

> have a

> much better understanding of the pgm after my "read"...I'll have to

> buy

> new print cartridges for my HP-940C today so I can finish the

> printing...the black cartridge shows an "about-to-run-out" level;

> Murphy's law eh!?!...but then I will have a nice reference manual

> for Zone

> Alarm....

>

> ...I am having some weird little troubles since the install of ZA;

> such as

> an "illegal" screen keeps popping up and I have trouble now dialing

> my

> t server but usually get it to work after several tries and often

> now my computer locks up so I have to reboot a few times until

> things get going again, etc....but I'll stick with it...I did try ZA

> a

> couple of months back but things were so screwed up that I

> uninstalled

> it...

>

> ...so now I'm having more success with it this time around...I hope

> this

> posting helps others who might be having problems on the learning

> curve...

> ...please don't tell me I'm the only one eh!?!....hihihi....

>

> ..72/73 - Bruce (VE5RC+VE5QRP) QRP-C#1 QRP-L#886 ARCI#9683

> Zombie#272

> A-1 Operator Club - 10/10# 944 - QRP Borg#1 - Whiner#10

> -

> - VE5QRP SOC#11 - VE5RC SOC#12 - oo#148 - K2#2032 -
> COG#15 -
> - Zone Alarm + AVG Virus Protection -
> "QRP! How sweet it is!" "I am da man wit "DAH"
> paddle!"
>
>
>

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<http://dl.www.juno.com/get/web/>.

Date: Sat, 12 Jan 2002 15:07:13 -0500
From: "Henry Freedenberg" <henryf@quartz.gly.fsu.edu>
To: qrp-l@lehigh.edu
Subject: [117498] Harbor Freight
Message-ID: <3C405121.26683.B8BBA@localhost>
MIME-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7BIT

Anyone have experience with the Forstner bits being marketed by Harbor Freight? I don't hold out much hope for the steel bits but Harbor Freight sells a premium titanium nitride bit that may be capable of holding an edge.

How about the Harbor Freight version of the Roto-zip? The price is reasonable but I fear that I will be getting what I pay for. Has anyone ordered the Harbor Freight Roto-zip?

Henry

Date: Sat, 12 Jan 2002 15:18:39 -0500
From: "John J. McDonough" <wb8rcr@arrl.net>
To: "Low Power Amateur Radio Discussion" <qrp-l@lehigh.edu>
Cc: "Larry Cahoon" <lejek@erols.com>
Subject: [117499] Re: Trouble Posting?
Message-ID: <01ba01c19ba6\$54b4dc60\$010044c0@chartermi.net>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

The person who had the original problem discovered it was a virus scanner modifying his email! Another person with a similar problem seem to have his Eudora now set up properly. If his next post shows up here he will be home free,

72/73 de WB8RCR <http://www.qsl.net/wb8rcr>
didileydadidah QRP-L #1446 Code Warriors #35

----- Original Message -----

From: "Larry Cahoon" <lejek@erols.com>
To: <wb8rcr@arrl.net>; "Low Power Amateur Radio Discussion"
<qrp-l@Lehigh.EDU>
Sent: Saturday, January 12, 2002 2:55 PM
Subject: Re: Trouble Posting?

> Don't look at Eudora too hard. I've been using
> 5.1 since at least October

Date: Sat, 12 Jan 2002 15:02:16 -0500
From: Hank Kohl <k8dd@arrl.net>
To: qrp-l@lehigh.edu
Subject: [117500] Re: Trouble Posting?
Message-ID: <5.1.0.14.2.20020112145430.01df2a00@mail.arenet.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

At 1/12/02 12:27 PM -0500, WB8RCR wrote:
Recently a lot of folks have been reporting trouble posting to the list.
This morning, I got a direct email from someone who has also been having trouble posting.

On comparing the headers from the email he sent me with earlier successful posts, it appeared that he had upgraded his version of Eudora from 5.0.2 to 5.1. More interesting, the newer version sent his email as a multipart message, even though it only contained one part, and that part was plain text. Although I'm not the list admin, and can't say for sure, I am pretty confident that the reflector will reject a multipart message, even if it has only one part.

If you are a Eudora user, and know how to set the newer version up so it will send a single part message, perhaps you can enlighten those folks who

can't post (and consequently can't ask!)

Assuming this works and gets to qrp-l

If you send yourself an email and then open it up, and check the headers and see something like:

Content-Type: multipart/alternative;
boundary="===== _22198198==_ .ALT"

instead of something like:

Content-Type: text/plain; charset="us-ascii"; format=flowed

you are most likely sending "plain and styled text".

In Eudora 5.1 I went to Tools | Options | Styled Text and changed the option from "Send both plain and styled" to "Send plain only"
Seems like I "shot my self in the foot when I changed it from "Send plain only"!

In the Outlook's the option is there somewhere under Tools | Options in the e-mail preferences.

72/73 Hank K8DD

*/ Hank Kohl K8DD k8dd@arrl.net
*/ ARRL TS http://www.qsl.net/k8dd
*/ MI-QRP - Vice Pres. QRP-ARCI - Director
*/

If God intended you to be on single sideband, he would have given you only one nostril.

- Steve, K2PTS

Date: Sat, 12 Jan 2002 13:27:58 -0700
From: tailfeathers@juno.com
To: qrp-l@lehigh.edu
Subject: [117501] Re: ZoneAlarm ?
Message-ID: <20020112.132758.-489219.2.tailfeathers@juno.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

Just a quick follow up...After installing Ad-aware and reinstalling ZA the programs that previously asked for internet access no longer existed...Gone.

Gary
n8gsj/7

I completely removed ZA and installed AD-Aware. After that I reinstalled ZA and will try repeat try to figure out what the programs are that asked for internet access. I see that they withhold a key part of ZA that tells you more about the spyware. I keep my Norton AV up to date so I just think I was being spied on as Ad-Aware did remove some spyware. Lets muddle our way through this. :>)

Gary
n8gsj/7

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Date: Sat, 12 Jan 2002 16:25:20 -0500
From: "Michael C. Boatright" <ko4wx@mindspring.com>
To: qrp-l@lehigh.edu
Subject: [117502] QRP in London?
Message-ID: <5.0.2.1.2.20020112162157.021f8930@pop.mindspring.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

Headed to London, shortly. Would love to hook up with any QRP'ers that might be in town (staying on Regent Street) for a bite or a cup.

Had hoped to get by RSGB HQ while I'm there but doesn't look like the schedule permits...

72 de Mike, K04WX
Michael C. Boatright

Date: Sat, 12 Jan 2002 15:37:44 -0800 (PST)

From: Wayne Williams <aa5jj@yahoo.com>
To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Cc: aa5jj1@home.com
Subject: [117503] For Sale
Message-ID: <20020112233744.33048.qmail@web10501.mail.yahoo.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

I have a 30 meter and 40 meter QRP rig for sale they are both OHR rigs and in good shape, I just have more rigs than I need so these need a good home. asking 125.00 each shipped to lower 48. Contact me at "aa5jj1@home.com" or call 918-687-1382... might do some trading, I am looking for a transverter for 2 meter side band or an old 2 meter side band all mode.

73 Wayne
AA5JJ

Do You Yahoo!?
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Date: Sat, 12 Jan 2002 18:48:17 -0500
From: Paul Womble <pwomble1@tampabay.rr.com>
To: QRP-L <qrp-1@lehigh.edu>, FP List <fpqrp-1@mpna.com>
Subject: [117504] Yaesu FT-50 ht: Trade or sell
Message-ID: <3C40CB41.58380741@tampabay.rr.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

I have a Yaesu FT-50 2m/440 HT that is surplus to my needs (don't need two). I would like to trade it for a Yaesu VX-5R.

The FT-50 is in good condition. I just replaced the front glass, knobs, and rubber covers over the mic/ear & 12v connections.

Also included: manual, box, original antenna plus a Diamond stubby antenna, FNB-41 battery, leather case, speaker mic, and NC-50 dual slot rapid charger.

Digital pics available upon request. Please email with any questions.
I'll sell this package also. Make me an offer if interested.

Thanks!

Paul K4FB

Date: Sat, 12 Jan 2002 11:51:48 -0700
From: Ron KU7Y <mswmod@bigplanet.com>
To: w5yr@att.net, Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [117505] Re: Conjugate Matching (now very long!)
Message-ID: <000301c19bc3\$e32ba1a0\$c9c0a9d8@oemcomputer>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7bit

Wheeeee!!!!

This is getting to be fun plus I'm learning a LOT. Part of this learning process is learning how to state my questions so they can be understood! :-)

In using the term Conjugate Match I was doing this..... I read the "paper" which had that term in the title and what I came away "understand" was that the reflected power added to the forward power on the next cycle and made it to the antenna, minus what amount was lost to all those things that eat up our RF.

So maybe the term was meant to explain why this can happen or under just what conditions it can happen under.

Also, Larson's main business was VHF/UHF antennas used in commercial installations so I don't think there was any antenna tuner used in his paper.

I will not be around the computer tomorrow as we are going to spend the day with the kids and grand kids in Phoenix. But I will be thinking about the great posts this has generated so far.

As a totally separate question let me ask this.....

If I have a forward power of 10w and a reflected power of 1w, 100' of RG-8, a 300 ohm antenna with no reactance, how much of my 10w will be given up to loss and how much will wind up being radiated?

Or maybe even a better way to see what I'm trying to see is to compare the above situation with one where you have a forward power of 10w and a reflected power of 0w and show the difference in radiated power.

In other words, just how much power will do we really lose when we have some mismatch?

And please remember that I get confused when showing power in watts on one end of the question and dB on the other end. Lets wind up with the answer in watts because I'll just bet that I'm not the only one who gets confused that way!

Yes, yes, I "know" that if I double my power I will gain 3 dB. But I still get confused when I really try to convert dB to power.

Here's an example of my confusion..... lets look at this from George:

> for only 0.11 db additional loss which is totally negligible

So, how much power, in watts, is this? I really don't understand how to get from here to there!

OK, again, thanks to all for all the work and I'll get back in my hole....

Ron, KU7Y
ku7y@qsl.net
Full Time RVing somewhere in the West
Currently in Brenda, AZ.

End of QRP-L Digest 2434

